

Study of Factors Affecting Strategic Leadership in Post Disaster Reconstruction Processes

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Abstract

The increasing nature of impacts from both natural and manmade disasters has made post disaster reconstruction a key area of concern. Specifically, recovery is a momentous challenge for those with less experience in large scale post disaster reconstruction. This is not an exception to Sri Lanka, which is prone to natural disasters. The 2004 Indian Ocean Tsunami gave Sri Lanka a warning as to its vulnerability to large scale disasters. The Center for Policy Alternatives report of 2006 indicates that a lack of clarity regarding the duties and functions of many actors created confusion and delays in the recovery process. Further, it says that the absence of a coherent structure caused problems in coordination, preventing aid from reaching many people in an efficient and effective manner. Such findings emphasise the importance of having a good leadership base for reconstruction activities. This study aims to identify factors affecting strategic leadership in post disaster reconstruction processes and their evaluation in practical terms. A questionnaire survey was carried out among twenty five experts in construction industry. The Delphi technique was used to formulate factors which affect strategic leadership in post disaster reconstruction. The survey revealed 19 of 25 factors as critical for effective strategic leadership, which were further compressed into five factors based on similarities such as, basic parameters (knowledge, experience, communication and skill), conceptual skills (conceptual flexibility, future vision, political sensitivity), personnel qualities (ethics, moral, self belief, responsibility), positive attributes (empowering subordinates, interpersonal competency, team performance) and special abilities (commanding ability, coordination, decision making, personal competency, strategic thinking). Evaluation of these factors in two housing projects revealed that future vision, political sensitivity, self belief, decision making, strategic thinking, coordination and empowering subordinates contributed more to the successful of post disaster reconstruction, while less experience, poor team performance and a failure to empower subordinates contributed to less successful outcomes.

Keywords: strategic leadership, post disaster reconstruction, critical factors, housing, Sri Lanka

1. Introduction

Natural hazards are extreme events that could cause potential harm on both socioeconomic and ecological systems, which ultimately become a major disaster. Therefore, identification of vulnerabilities and risks associated with major hazards are important for any particular country. A lack of understanding on pertinent issues, poor co-ordination, a scarcity of resources, capacity constraints and unbalanced activities were identified as key issues that increase the vulnerability of communities to disaster risk (Keraminiyage et al 2008; Alexander et al 2006). It is vital that governments have a proper understanding of the nature of disasters and the mechanisms to help victims in the short and long term. In order to achieve this, it is necessary to identify proper funding systems, specialist knowledge, non government organization's assistance, training programmes for people, and ways to build up close relationships and proper coordination among stakeholders.

Sri Lanka is also prone to natural disasters commonly caused by floods, cyclones, landslides, droughts and coastal erosion for generations with increasing losses to life and property during the past few decades (Jayawardane 2006). The devastation caused by The Asian Ocean Tsunami in 2004 took Sri Lanka by surprise, warning that Sri Lanka is also vulnerable to low-frequency high impact events with extensive damage. It has been identified that more than 98,000 permanent houses have to be rebuilt (Reconstruction and Development Agency 2006). Although several initiatives were taken by the government in the past to mitigate these damages, they were mostly reactive, with an emphasis on relief and recovery rather than being proactive with damage prevention or minimization strategies (Jayawardane 2006). The Institute of Policy Studies of Sri Lanka (2006) indicates that the most serious constraint is likely to be lack of capacity and material. Claudia et al (2006) further indicate that a lack of land and unclear distribution criteria, improper identification of beneficiaries and little to no participation throughout the reconstruction process, political and management malpractices, cumbersome government bureaucracy, a lack of information available to the public, a failure to utilize foreign aid in a timely manner and for intended purposes, a lack of transparency, and a lack of coordination for maximum use of aid funds, are main issues to be addressed in reconstruction of housing. Nissanka et. al (2008) also identified above mentioned issues on her study of factors affecting post disaster housing reconstruction. Center for Policy Alternatives (2006) argued that "The lack of clarity regarding duties and functions of many actors created confusion and delays in the tsunami recovery process". It further says, "the absence of a coherent structure causes problems in coordinating and ensuring that aid reaches people in an efficient and effective manner, also leading to duplication". A study by the Heinrich Boll Foundation on 'Tsunami disaster response in Sri Lanka' also mentions major impediments of reconstruction as "a lack of coordination for maximum use of aid funds". It would appear that these major shortcomings were caused due to various issues among which poor leadership qualities is a key factor that adversely affected reconstruction work in post tsunami Sri Lanka. Thus, striking the right balance between needs of people, tasks and goals in a given situation, or in a simple term *leadership* (Cole 2004), would appear to be vital for the success of post disaster reconstruction programs. Hence, this study intends to identify factors affecting strategic leadership in post disaster housing reconstruction processes and its behavior in real time post disaster reconstruction processes. Forthcoming sections of the paper discuss literature findings on two key areas: post disaster reconstruction and strategic leadership, research methodology and research findings pertain to study.

2. Literature review

2.1 Post disaster reconstruction

Rotimi et al (2006) indicate that the task of reconstruction after a major disaster can be an onerous challenge. Furthermore, they emphasise the importance of coordinating all stakeholders for effective and efficient recovery of an affected community. Similarly, Toigo (1989) highlighted the importance of reconstruction planning and the benefit gained through accumulation of knowledge and experience derived from successive events and research. Haigh et al (2006) also indicate that it is a significant area for research, with particular emphasis on developing countries that are less able to deal with causes and impacts of disasters. Further, they argue that the construction industry has a much broader role to anticipate, assess, prevent, prepare, respond and recover from disruptive challenges. The United Nations Report on Post Disaster Settlement, Shelter and Housing (2006) further indicates the importance of reconstruction referring to the high-cost and long-term commitments of per capita required. In addition, many authors highlighted the complexity of post disaster reconstruction, referring to various dimensions as risks and uncertainty (Moe and Pathranarakul 2006; Wu and Lindell 2004).

One of the main reconstruction activities of a disaster is provision of housing. The United Nations Disaster Relief Coordinator (UNDRO) (1982, p11) defined post-disaster housing as "*housing policies and applications following a disaster for meeting the urgent, temporary and permanent sheltering needs of the survivors of the disaster*". Further, it indicates that post-disaster housing is not only a dwelling product but also a process which involved a "*long chain of social, economic, technological, environmental, political and other interactions*" (UNDRO 1982, piii). This interaction combines social consciousness, highly developed technology and economic systems with participation of the affected community (Norton 1980; UNDRO 1982; Barakat 2003). Next section discusses role of strategic leadership in post disaster reconstruction process.

2.2 Strategic Leadership

Leadership is a dynamic process, which implies that there is no "one best way" of leading. The art of good leadership is to be able to make the best use of all variables even when they are unfavorable. Burns (1978) talks about leaders being persons with certain motives or purposes and who mobilize resources in order to arouse, engage and satisfy the needs of followers. Antonakis (2006) categorized leadership styles into four, such as transformational, transactional, instrumental and strategic leadership.

Among these styles strategic leadership plays a key role in many disciplines. Guillot (2005) indicates that a strategy is a plan whose aim is to link ends, ways and means. Willcoxson (2000) argues that it has become difficult since the thinking required to develop the plan is based on uncertain, ambiguous, complex or volatile knowledge, information and data. Furthermore, it entails making decisions across different cultures, agencies, agendas, personalities and desires. Guillot (2005) also indicates that it requires devising of plans that are feasible, desirable and acceptable to one's organization and partners – whether joint, inter agency or multinational. In this context, strategic leadership becomes a vital

component for the successfulness of post disaster reconstruction programs, referring to risks and uncertainty involved. For an example, study conducted by Nissanka et. al (2008) on factors affecting post disaster housing reconstruction in Sri Lankan context proved that lack of planning and recovery strategies were affected for housing reconstruction.

Davies and Davies (2004) argued that leadership can be defined on an organizational and individual basis. To perform well as organizational or individual leaders, they have to address problems using correct strategies technically. These strategies differ by many factors. Strategic leaders mainly need to identify best and easy ways to approach problems when they occur (Cole 2004). However, there are some limitations and boundaries for strategic leadership activities. Sometimes leaders can't reach their targets due to improper and unbalanced strategies (Cole 2004).Sashkin (1992) indicates that factors affecting strategic leadership may vary according to the profession and activities which have to be followed by Strategic Leaders who need to foster development of personal competencies throughout an organization. Furthermore, he indicates that the development of lower level needs should be focused on political communication and influence skills that assist in identification of others and promotion of one's own strategic agendas. The good strategy and interpersonal skills needed at the top of an organization are equally necessary across the organization to provide a stimulating and rewarding work environment, and to develop the flexibility needed to cope with changing circumstances. (Willcoxson 2000).

Strategic Leadership Development Inventory (SLDI) provides a comparative view of an individual's strength and weaknesses of strategic leadership characterized into three groups as illustrated in table 1 (Berlain 1997 p.15).

Table 1: Strategic Leadership Development Inventory Skills and Attributes (Source – Berlain 1997 p.15)

<i>Conceptual Skills and Abilities</i>	<i>Positive Attributes</i>	<i>Negative Attributes</i>
<i>Professional Competence</i>	<i>Interpersonal Competence</i>	<i>Technical Incompetence</i>
<i>Conceptual Flexibility</i>	<i>Empowering Subordinates</i>	<i>Self Serving/Unethical</i>
<i>Future Vision</i>	<i>Team Performance</i>	<i>Micromanager</i>
<i>Conceptual Competence</i>	<i>Objectivity</i>	<i>Explosive/Abusive</i>
<i>Political Sensitivity</i>	<i>Initiative/Commitment</i>	<i>Arrogant</i>
		<i>Inaccessible</i>

In addition, NHS Institute for Innovation and Improvement, UK introduced a framework for factors affecting strategic leadership quality described in three dimensions as illustrated in table 2.

Table 2: Factors affecting to Strategic Leadership Quality (Source – NHS Institute for Innovation and Improvement, 2006. p.4)

<i>Personal Qualities</i>	<i>Setting Direction</i>	<i>Delivering the Service</i>
<i>Self belief</i>	<i>Broad scanning</i>	<i>Collaborative working</i>
<i>Self awareness</i>	<i>Intellectual flexibility</i>	<i>Effective and strategic influencing</i>
<i>Self management</i>	<i>Seizing the future</i>	<i>Empowering others</i>
<i>Drive for improvement</i>	<i>Political astuteness</i>	<i>Holding to account</i>
<i>Personal integrity</i>	<i>Drive for results</i>	<i>Leading change through people</i>

Comparatively, both revealed 25 factors which affect the strategic leadership except overlap, such as personal integrity, competencies, empowering subordinates, political astuteness, future vision, collaborative working or team performance.

Being identified the importance of strategic leadership for post disaster reconstruction and the factors affecting strategic leadership, next section of the paper discusses the research methodology adopted for identifying factors affecting strategic leadership in post disaster housing reconstruction in Sri Lankan context.

3. Research methodology

Both quantitative and qualitative research strategies were adopted in this study in order to achieve the outcomes. The first phase, quantitative research approach was utilized to identify factors which affect strategic leadership at post disaster reconstruction processes. Then a qualitative research approach was used to further explore how these factors behave upon implementation at post disaster reconstruction phases.

The structured questionnaire was prepared to obtain expert opinion on factors affecting strategic leadership according to Delphi methods. Delphi is a technique used to collect data from industry experts since this has the main advantage of being a mode of reliable data collection. Under this technique, selected expert panel is interviewed for several times to confirm their views on particular problem or phenomenon (Chan *et al* 2001 cited Linstone and Turoff 1975). Gregory *et al.* (2007) argued that Delphi method is well suited as a research instrument when there is incomplete knowledge about a problem or phenomenon, specifically when the goal is to improve our understanding of problems, opportunities, solutions or to develop forecasts. Under this technique, 25 numbers of experts from government, non government and private institutes involved in post disaster housing reconstructions were selected to confirm their views on 25 factors identified for affecting strategic leadership through literature review. Same people participated at all three rounds of Delphi method. Their responses to a series of questionnaires are anonymous and all of them were provided with a summary of opinions before answering the next questionnaire. The structured questionnaire was prepared with check lists using a five point Likert scale rating. The Likert scale was used to produce hierarchies of preferences that can be compared across groups of respondents as per the sampling

frame. The authors adopted a scale of 1 to 5 to where “1” represented “very low” and “5” the “very high” in term of impact of each parameters in strategic leadership. Basic knowledge, commanding ability, communication, coordination, conceptual competency, conceptual flexibility, decision making, drive for improvement, empowering subordinates, ethics, experience, future vision, interpersonal competency, objectivity, personal integrity, political sensitivity, professional competency, morals responsibility, self awareness, self belief, self management, skill, strategic thinking and team performance were considered as factors for evaluation. The relative importance index (RII) was used as analysis techniques.

$$RII = \frac{\Sigma (W n)}{A \times N} \times 100 \%$$

Equation 01: Relative Importance Index (RII)

Where,

W = Constant expressing the weighting given to each response.

A = the highest weighting.

n = the frequency of responses

N = total Number in the Responses

In phase two, the applicability of filtered critical factors identified from Delphi techniques were evaluated under two different conditions. Two housing projects which were identified from the questionnaire of Delphi round one were selected where one was successful and other was not. The scope of the word “successful” is not considered as contractor’s profitability, but as the quality of the output. Semi structured interviews were used as the method of data collection and key members in organization management were selected as the target group. As the implementation phase was identified as the most important for strategic leaders to test their abilities among other stages defined in four step models for strategic development (see section 2.2), this study is restricted to implementation phase of reconstruction process. In this context, prior to conducting interviews, the combined critical factors and development models were presented to selected experts to understand the background information prior to interviews.

4. Research findings

4.1 Results of the delphi rounds

According to findings of Delphi survey, at the end of Delphi round 01, 21 factors were identified as significant out of 25. An 80% - 20% rule of thumb was used as the data evaluation technique for the first Delphi round in order to calculate percentages of agreed factors (Chan *et al* 2001 cited Linstone

and Turoff 1975). Factors with an agreed percentage below 80% were not considered as critical and thus, not taken into the second round. Self awareness, personal integrity, self management and drive for improvement were considered as insignificant by respondents. At the end of second round, 19 factors were identified as significant with same results at the end of third or final round of Delphi technique. Conceptual competency and objectivity were considered as insignificant by experts at the end of second & third rounds.

4.2 F actor combination

At the end of Delphi rounds 19 factors were further combined into five main categories based on similarities among the factors. The combination was based on qualities that strategic leaders should have to perform activities identified at literature review (See section 2.2).Table 3 illustrates factor combination for strategic leadership.

Table 3: Combined Factors for strategic leadership

<i>Factor</i>	<i>Factor Name</i>	<i>Preliminary Factor</i>
<i>Factor 1</i>	<i>Basic Parameters</i>	<i>Basic Knowledge Communication Experience Skill</i>
<i>Factor 2</i>	<i>Conceptual Skills</i>	<i>Conceptual Flexibility Future Vision Political Sensitivity</i>
<i>Factor 3</i>	<i>Personnel Qualities</i>	<i>Ethics Moral Responsibility Self Belief</i>
<i>Factor 4</i>	<i>Positive Attributes</i>	<i>Empowering Subordinates Interpersonal Competency Team Performance</i>
<i>Factor 5</i>	<i>Special Abilities</i>	<i>Commanding Ability Coordination Decision Making Professional Competency Strategic Thinking</i>

Factor 1, Basic parameters indicates fundamental requirements to become a good strategic leader. Factor 2, Conceptual skills illustrates requirements which a strategic leader has to develop by his mentality to perform well. Factor 3, Personal Qualities indicates inner qualities of a strategic leader which enhance merits of a person, which should have been brought from his evolution, because it is difficult to develop them after becoming a leader. Factor 4 emphasizes the importance of collaborative working. Finally, factor 5 indicates critical activities which have to be performed by strategic leaders.

4.3 Results of interviews

Results of interviews revealed that, all five factors are important for project successfulness.

According to interviewees, factor 1, basic parameters, makes a good impact on projects as disaster reconstruction projects emerge from outside donors, with whom basic knowledge, communication and experience are critical factors for survival. As an example, in post disaster reconstruction projects, certain sectors such as government, donor agencies and victims take part where professionals have to effectively communicate to achieve given targets.

Factor 2, conceptual skills, was identified as important for the success of a project since it provides flexibility to alter projects based on drafted policies of donors as well as to achieve future vision statements of government. However, political sensitivity has made more impact on both projects since there were so many changes to political decision from time to time such as alterations made to the coastal buffer zone after the tsunami.

Factor 3, personnel qualities, also added value to both projects. For example, the ethics and codes of conduct of each profession safeguarded against unethical practices. Moral and self belief was at a remarkable high as each person wanted to do something for destitute people. Responsibilities of workers were observed at high level except at few occasions due to changes of government policies. For an example, government decision to convert RADA to TAFREN made job security of professionals an issue and responsibilities were avoided until they got confirmation of their positions.

Factor 4, positive attributes, played a key role towards successfulness of projects. Specifically, comments of the least successful project's coordinator indicated that "team performance was bad in reconstruction activities and doesn't have the concept of working together and go to a winning situation". Empowering subordinates was highlighted as an exceptional factor at implementation phase by the respondent of the successful project. Donor agencies's requests for performances records before disbursement of funds throughout project implementation period prompted leaders from top to bottom to empower subordinates to complete work within given time, cost and quality constraints. The respondent of the least successful project indicated that this had been the cause which was not good at that time, eventually affecting project success.

Factor 05, special abilities made an impact on activities of the least successful project at normally satisfied levels as leaders could take their own decisions. In the successful project, commanding ability had a greater effect to make a situation easy to handle from top to lower levels. Drafted policies of the project included requirements and the way to perform. Especially, figures of performed

activities and feedback needed to receive funds from donors. Furthermore, coordination was an obligatory thing due to involvement of different sectors where decision making was very critical when compared to a normal construction project. In spite of these, professional competency played a key role in order to complete work according to acceptable quality and cost requisites, within restricted time frames. Strategic thinking also influenced performance of leaders to minimize unnecessary costs and find suitable ways to achieve targets. Respondents illustrated an example where, when there was a risk of increasing cement prices during reconstruction, leaders thought strategically and discussed with government to reduce taxes on cement. This solved a major financial issue of disaster reconstruction work.

Analyzing the two scenarios, it seems that all five factors influenced heavily on both projects as a whole. Specifically, “positive attributes” and “special abilities” were identified as key factors which contribute towards success of a project.

5. Conclusions

The failure of many post disaster reconstruction projects in Sri Lanka was highlighted by various scholars (See section 2.1). It affected post disaster reconstruction procedure , thereby affecting quality, cost and time. Among key reasons, leadership was a critical factor that impacted on PDR during the post tsunami period. Under the leadership heading “Strategic Leadership” performed an immense role to develop “new organizational culture” to arrange convenient paths to improve the system which strategically addressed traditionally encountered problems of PDR. Further, SLP will find new dimensions to reach successful achievements of PDR activities. Thus, this study aimed to identify factors which affect strategic leadership at PDR. Initially, 25 factors were identified through compressive literature review and then it was evaluated through experts of post disaster reconstruction using Delphi techniques to formulate critical factors affecting strategic leadership. Then, these factors were further evaluated under two different situations of implementation phase of housing projects to identify behavior of each factor.

Results indicated 19 factors as significant which were categorized into five based on similar exhibits such as basic parameters (knowledge, experience, communication and skill), conceptual skills (conceptual flexibility, future vision, political sensitivity), personnel qualities (ethics, moral, self belief, responsibility), positive attributes (empowering subordinates, interpersonal competency, team performance) and special abilities (commanding ability, coordination, decision making, personal competency, strategic thinking). Further evaluation of these recognized two factors, “positive attributes” and “special abilities” as being more important towards a project’s successfulness. Thus results revealed the importance of developing collaborative working concepts among leaders as well as subordinates to be successful with post disaster reconstruction processes.

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